

# UNEXPECTED REACTION OF TRIS (TRIMETHYLSILYL) PHOSPHITE WITH A HINDERED NITRONE

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## Description

Reaction of 5,5-dimethyl-2,4-diphenylpyrroline N-oxide with *tris*(trimethylsilyl)phosphite gave 2,2-dimethyl-3,5-*trans*-diphenylpyrrolidinium orthophosphite, as the only product, in 90% yield. The absolute structure of the title compound was established by X-ray crystallography.  $C_{18}H_{24}NO_3P$  crystallizes in the triclinic space group  $P_1^-$  with  $a = 8.806(4)$ ,  $b = 10.331(1)$ ,  $c = 11.375(5)$  Å,  $\alpha = 65.55(6)$ ,  $\beta = 88.21(4)$ ,  $\gamma = 67.80(6)$ ,  $V = 866.5(4)$  Å<sup>3</sup>,  $Z = 2$ ,  $d_{cal} = 1.28$ ,  $\lambda$  Mo  $K_{\alpha} = 0.71069$  Å.  $\mu = 1.666$  cm<sup>-1</sup>,  $F(000) = 356$ ,  $T = 293$  K. The compound presents a *trans* C-3,C-5 diphenylpyrrolidine structure with a dihedral angle = 91.66° between the two phenyl rings.